



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We make Indiana a cleaner, healthier place to live.

Joseph E. Kernan
Governor

Lori F. Kaplan
Commissioner

November 13, 2003

100 North Senate Avenue
P.O. Box 6015
Indianapolis, Indiana 46206-6015
(317) 232-8603
(800) 451-6027
www.in.gov/idem

TO: Interested Parties / Applicant

RE: Indiana Michigan Power Company / SSM 147-17468-00020

FROM: Paul Dubenetzky
Chief, Permits Branch
Office of Air Quality

Notice of Decision: Approval - Effective Immediately

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 13-15-5-3, this permit is effective immediately, unless a petition for stay of effectiveness is filed and granted according to IC 13-15-6-3, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

If you wish to challenge this decision, IC 4-21.5-3 and IC 13-15-6-1 require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Room 1049, Indianapolis, IN 46204, **within eighteen (18) calendar days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

- (1) the date the document is delivered to the Office of Environmental Adjudication (OEA);
- (2) the date of the postmark on the envelope containing the document, if the document is mailed to OEA by U.S. mail; or
- (3) The date on which the document is deposited with a private carrier, as shown by receipt issued by the carrier, if the document is sent to the OEA by private carrier.

The petition must include facts demonstrating that you are either the applicant, a person aggrieved or adversely affected by the decision or otherwise entitled to review by law. Please identify the permit, decision, or other order for which you seek review by permit number, name of the applicant, location, date of this notice and all of the following:

- (1) the name and address of the person making the request;
- (2) the interest of the person making the request;
- (3) identification of any persons represented by the person making the request;
- (4) the reasons, with particularity, for the request;
- (5) the issues, with particularity, proposed for considerations at any hearing; and
- (6) identification of the terms and conditions which, in the judgment of the person making the request, would be appropriate in the case in question to satisfy the requirements of the law governing documents of the type issued by the Commissioner.

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178. Callers from within Indiana may call toll-free at 1-800-451-6027, ext. 3-0178.

Enclosures
FNPER.dot 9/16/03

Part 70 Significant Source Modification and Pollution Control Project

OFFICE OF AIR QUALITY

**Indiana Michigan Power Company - Rockport Plant
dba American Electric Power
2791 North US Highway 231, Rockport, IN 47635**

(herein known as the Permittee) is hereby authorized to construct and operate subject to the conditions contained herein, the emission units described in Section A (Source Summary) of this approval.

This approval is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Source Modification No.: 147-17468-00020	
Issued by: Original signed by Paul Dubenetzky Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: November 13, 2003

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SECTION A

SOURCE SUMMARY

This approval is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the emission units contained in conditions A.1 through A.2 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this approval pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)] [326 IAC 2-7-1(22)]

The Permittee owns and operates a stationary power plant.

Source Name:	Indiana Michigan Power Company - Rockport Plant dba American Electric Power
Source Location:	2791 North US Highway 231, Rockport, IN 47635
Mailing Address:	2791 North US Highway 231, Rockport, IN 47635 or AEP, 1 Riverside Plaza, Columbus, OH 43215
Source General Telephone Number:	812/649-9171
Responsible Official:	Vice President - Base 1300 Generation
County:	Spencer
SIC Code:	4911 (Electric Power Generation)
Source Categories:	1 of 28 listed source categories Major PSD Source Major Source, CAA Section 112

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)]

[326 IAC 2-7-5(15)] [326 IAC 2-7-5(15)]

This stationary source is approved to:

- (a) replace the low NOx burners (LNB) of MB1 and MB2, and
- (b) install an overfire air (OFA) system consisting of overfire air ports and associated duct work and damper systems to MB1 and MB2.

The 2 main boilers are described as follows:

Two (2) pulverized coal fired dry bottom boilers, identified as Main Boiler 1 (MB1) and Main Boiler 2 (MB2).

Each boiler is rated at 12,374 million (MM) BTU per hour input, and each is used to generate 1,315 megawatts (net) of electricity.

Each boiler is with electrostatic precipitator (ESP) for particulate control, and low NOx burners (LNB) and overfire air (OFA) systems for NOx control and the emissions are exhausting to a common stack, identified as CS012.

Distillate oil and Specification Used oil are used for start up, flame stabilization purposes and occasional extended load operation only.

A.3 Part 70 Permit Applicability [326 IAC 2-7-2]

This stationary source is required to have a Part 70 permit by 326 IAC 2-7-2 (Applicability) because:

- (1) It is a major source, as defined in 326 IAC 2-7-1(22);
- (2) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability).

SECTION B GENERAL CONSTRUCTION CONDITIONS

B.1 Definitions [326 IAC 2-7-1]

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2 and 326 IAC 2-7) shall prevail.

B.2 Effective Date of the Permit [IC13-15-5-3]

Pursuant to IC 13-15-5-3, this permit becomes effective upon its issuance.

B.3 Revocation of Permits [326 IAC 2-1.1-9(5)] [326 IAC 2-7-10.5(i)]

Pursuant to 326 IAC 2-1.1-9(5) (Revocation Permits), the Commissioner may revoke this approval if construction of the PCP is not commenced within eighteen (18) months after receipt of this approval or if construction of the PCP is suspended for a continuous period of one (1) year or more.

B.4 Significant Source Modification [326 IAC 2-7-10.5(h)]

This document shall also become the approval to operate pursuant to 326 IAC 2-7-10.5(h) when, prior to start of operation, the following requirements are met:

- (a) The attached affidavit of construction or its equivalent shall be submitted to the:

Indiana Department of Environmental Management
Office of Air Quality, Permit Branch
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

verifying that the PCP was constructed as proposed in the application or the permit.

The PCP covered in the Significant Source Modification (SSM) approval may begin operating on the date the affidavit of construction is postmarked or hand delivered to IDEM if constructed as proposed.

If construction is completed in phases; i.e., the entire construction is not done continuously, a separate affidavit must be submitted for each phase of construction. Any permit conditions associated with operation start up dates such as stack testing for New Source Performance Standards (NSPS) shall be applicable to each individual phase.

- (b) If actual construction of the PCP differs from the construction proposed in the application or the permit in a manner that is regulated under the provisions of 326 IAC 2-2, the source may not begin operation until the source modification has been revised pursuant to the provisions of that rule and the provisions of 326 IAC 2-1.1-6 and an Operation Permit Validation Letter is issued.
- (c) If actual construction of the PCP differs from the construction proposed in the application or the permit in a manner that is not regulated under the provisions of 326 IAC 2-2, the source may not begin operation until the source modification has been revised pursuant to the provisions of that rule and the provisions of 326 IAC 2-7-11 or 326 IAC 2-7-12 and an Operation Permit Validation Letter is issued.
- (d) The Permittee shall attach the Operation Permit Validation Letter to this permit.

- (e) In the event that the Part 70 application is being processed at the same time as this application, the following additional procedures shall be followed for obtaining the right to operate:
 - (i) If the Part 70 draft permit has not gone on public notice, then the change/addition covered by the Significant Source Modification will be included in the Part 70 draft.
 - (ii) If the Part 70 permit has gone through final EPA proposal and would be issued ahead of the Significant Source Modification (SSM), the SSM will go through a concurrent 45 day EPA review. Then the SSM will be incorporated into the final Part 70 permit at the time of issuance.
 - (iii) If the Part 70 permit has gone through public notice, but has not gone through final EPA review and would be issued after the Significant Source Modification is issued, then the Modification would be added to the proposed Part 70 permit, and the Title V permit will issued after EPA review.

B.5 Annual Operating Fees

The Permittee shall be subject to annual operating permit fees, pursuant to 326 IAC 2-7-19 (Fees).

B.6 Pollution Control Project (PCP) [326 IAC 2-2.5]

Pursuant to 326 IAC 2-2.5, the Permittee shall be limited to the following construction:

- (1) replace the low NOx burners (LNB) of MB1 and MB2 and
- (2) install an overfire air (OFA) system consisting of overfire air ports and associated duct work and damper systems to MB1 and MB2.

SECTION C GENERAL OPERATION CONDITIONS

C.1 Certification [326 IAC 2-7-4(f)][326 IAC 2-7-6(1)][326 IAC 2-7-5(3)(C)]

- (a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by a responsible official of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) One (1) certification shall be included, using the attached Certification Form or equivalent, with each submittal requiring certification.
- (c) A responsible official is defined at 326 IAC 2-7-1(34).

C.2 Preventive Maintenance Plan [326 IAC 2-7-5(1),(3) and (13)] [326 IAC 2-7-6(1) and (6)]

[326 IAC 1-6-3] [326 IAC 1-6-3]

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) when the PCP operation begins, including the following information on each facility:
 - (i) Identification by jobs or titles of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
 - (ii) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
 - (iii) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.
- (b) The Permittee shall implement the PMPs, including any required record keeping, as necessary to ensure that failure to implement a PMP does not cause or contribute to an exceedance of any limitation on emissions or potential to emit.
- (c) A copy of the PMPs shall be submitted to IDEM, OAQ, upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ.
- (d) The IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions or potential to emit.
- (e) To the extent the Permittee is required by 40 CFR Part 60 or 40 CFR Part 63 to have an Operation, Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

C.3 Deviations from Permit Requirements and Conditions [326 IAC 2-7-5(3)(C)(ii)]

- (a) Deviations from any permit requirements (for emergencies see Section C - Emergency Provisions), the probable cause of such deviations, and any response steps or preventive measures taken shall be reported to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality

100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

using the attached Quarterly Deviation and Compliance Monitoring Report, or its equivalent.

A deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report.

The Quarterly Deviation and Compliance Monitoring Report does require the certification by the Aresponsible official® as defined by 326 IAC 2-7-1(34).

- (b) A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.

C.4 Permit Amendment or Modification [326 IAC 2-7-11] [326 IAC 2-7-12] [326 IAC 2-7-5(6)(C)]

[326 IAC 2-7-8(a)] [326 IAC 2-7-9]

- (a) Permit amendments and modifications are governed by the requirements of 326 IAC 2-7-11 or 326 IAC 2-7-12 whenever the Permittee seeks to amend or modify this permit.

- (b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

Any such application shall be certified by the Aresponsible official® as defined by 326 IAC 2-7-1(34).

- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]
- (d) No permit amendment or modification is required for the addition, operation or removal of a nonroad engine, as defined in 40 CFR 89.2.

C.5 Operation of Equipment [326 IAC 2-7-6(6)]

Except as otherwise provided by statute or rule, or in this permit, the LNB and OFA shall be operated at all times that the 2 main boilers are in operation.

Testing Requirements [326 IAC 2-7-6(1)]

None

Compliance Requirements [326 IAC 2-1.1-11]

C.6 Compliance Requirements [326 IAC 2-1.1-11]

- (a) The Commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements by issuing an order under 326 IAC 2-1.1-11.

- (b) Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the Commissioner or the U. S. EPA.

Compliance Monitoring Requirements [326 IAC 2-7-5(1)] [326 IAC 2-7-6(1)]

C.7 Compliance Monitoring [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

- (a) If required by Section D of this permit, all monitoring and record keeping requirements shall be implemented when operation begins.
- (b) If required by Section D of this permit, the Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment.

C.8 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]

Any monitoring or testing required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, 40 CFR 60 Appendix B, 40 CFR 63, or other approved methods as specified in this permit.

Corrective Actions and Response Steps [326 IAC 2-7-5] [326 IAC 2-7-6]

C.9 Compliance Response Plan - Preparation, Implementation, Records, and Reports.

[326 IAC 2-7-5] [326 IAC 2-7-6]

- (a) The Permittee is required to prepare a Compliance Response Plan (CRP) for each compliance monitoring condition of this permit.

A CRP shall be submitted to IDEM, OAQ upon request.

The CRP shall be prepared when the PCP operation begins, by the Permittee, supplemented from time to time by the Permittee, maintained on site, and comprised of:

- (i) Reasonable response steps that may be implemented in the event that a response step is needed pursuant to the requirements of Section D of this permit; and an expected timeframe for taking reasonable response steps.
- (ii) If, at any time, the Permittee takes reasonable response steps that are not set forth in the Permittee's current Compliance Response Plan or Operation, Maintenance and Monitoring (OMM) Plan and the Permittee documents such response in accordance with subsection (e) below, the Permittee shall amend its Compliance Response Plan or Operation, Maintenance and Monitoring (OMM) Plan to include such response steps taken.

If the Permittee is required to have an Operation, Maintenance and Monitoring (OMM) Plan under 40 CFR 60 or 40 CFR 63, such plan shall be deemed to satisfy the requirements for a CRP for those compliance monitoring conditions.

The OMM Plan shall be submitted within the time frames specified by the applicable 40 CFR 60 or 40 CFR 63 requirement.

- (b) For each compliance monitoring condition of this permit, reasonable response steps shall be taken when indicated by the provisions of that compliance monitoring condition as follows:

- (i) Reasonable response steps shall be taken as set forth in the Permittee's current Compliance Response Plan or Operation, Maintenance and Monitoring (OMM) Plan; or
 - (ii) If none of the reasonable response steps listed in the Compliance Response Plan or Operation, Maintenance and Monitoring (OMM) Plan is applicable or responsive to the excursion, the Permittee shall devise and implement additional response steps as expeditiously as practical. Taking such additional response steps shall not be considered a deviation from this permit so long as the Permittee documents such response steps in accordance with this condition.
 - (iii) If the Permittee determines that additional response steps would necessitate that the emissions unit or control device be shut down, the IDEM, OAQ shall be promptly notified of the expected date of the shut down, the status of the applicable compliance monitoring parameter with respect to normal, and the results of the actions taken up to the time of notification.
 - (iv) Failure to take reasonable response steps shall be considered deviation from the permit.
- (c) The Permittee is not required to take any further response steps for any of the following reasons:
 - (i) A false reading occurs due to the malfunction of the monitoring equipment and prompt action was taken to correct the monitoring equipment.
 - (ii) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for a minor permit modification to the permit, and such request has not been denied.
 - (iii) An automatic measurement was taken when the process was not operating.
 - (iv) The process has already returned or is returning to operating within normal parameters and no response steps are required.
- (d) When implementing reasonable steps in response to a compliance monitoring condition, if the Permittee determines that an exceedance of an emission limitation has occurred, the Permittee shall report such deviations pursuant to Section C-Deviations from Permit Requirements and Conditions.
- (e) The Permittee shall record all instances when response steps, in accordance with Section D of this permit, are taken. In the event of an emergency, the provisions of 326 IAC 2-7-16 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.
- (f) Except as otherwise provided by a rule or provided specifically in Section D of this permit, all monitoring as required in Section D of this permit shall be performed when the emission unit is operating, except for time necessary to perform quality assurance and maintenance activities.

C.10 Emergency Provisions [326 IAC 2-7-16]

- (a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation.
- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:
 - (i) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
 - (ii) The permitted facility was at the time being properly operated;
 - (iii) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
 - (iv) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, no later than four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality, Compliance Section),
or
Telephone Number: 317-233-5674 (ask for Compliance Section)
Facsimile Number: 317-233-5967

- (v) For each emergency lasting one (1) hour or more, the Permittee submitted the attached Emergency Occurrence Report Form or its equivalent, either by mail or facsimile to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

no later than two (2) working days of the time when emission limitations were exceeded due to the emergency.

The notice fulfills the requirement of 326 IAC 2-7-5(3)(C)(ii) and must contain the following:

- (A) A description of the emergency;
- (B) Any steps taken to mitigate the emissions; and
- (C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require the certification by the Aresponsible official® as defined by 326 IAC 2-7-1(34).

- (vi) The Permittee immediately took all reasonable steps to correct the emergency.
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
- (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
- (e) IDEM, OAQ may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4-(c)(9) be revised in response to an emergency.
- (f) Failure to notify IDEM, OAQ, by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-7 and any other applicable rules.
- (g) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.
- (h) Permittee shall include all emergencies in the Quarterly Deviation and Compliance Monitoring Report or its equivalent.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

C.11 Emission Statement [326 IAC 2-7-5(3)(C)(iii)][326 IAC 2-7-5(7)][326 IAC 2-7-19(c)] [326 IAC 2-6]

- (a) The Permittee shall submit an annual emission statement certified pursuant to the requirements of 326 IAC 2-6, that must be received by July 1 of each year and must comply with the minimum requirements specified in 326 IAC 2-6-4.

The annual emission statement shall meet the following requirements:

- (i) Indicate estimated actual emissions of criteria pollutants from the source, in compliance with 326 IAC 2-6 (Emission Reporting);
 - (ii) Indicate estimated actual emissions of regulated pollutants as defined by 326 IAC 2-7-1 (ARegulated pollutant which is used only for purposes of Section 19 of this rule®) from the source, for purposes of Part 70 fee assessment.
- (b) The annual emission statement covers the twelve (12) consecutive month time period starting January 1 and ending December 31.

The annual emission statement must be submitted to:

Indiana Department of Environmental Management
Technical Support and Modeling Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

C.12 General Record Keeping Requirements [326 IAC 2-7-5(3)][326 IAC 2-7-6]

- (a) Records of all required monitoring data, reports and support information required by this Permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application.

These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years.

The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request.

If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

- (b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented when the PCP operation begins.

C.13 General Reporting Requirements [326 IAC 2-7-5(3)(C)]

- (a) The source shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent.

Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported.

This report shall be submitted no later than thirty (30) days of the end of the reporting period.

The Quarterly Deviation and Compliance Monitoring Report or its equivalent shall include the certification by the responsible official as defined by 326 IAC 2-7-1(34).

- (b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due.

If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

- (d) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted no later than thirty (30) days of the end of the reporting period.

All reports, except as specified otherwise, do require the certification by the Aresponsible official® as defined by 326 IAC 2-7-1(34).

- (e) The first report shall cover the period commencing on the date after initial start up and ending on the last day of the reporting period.

Reporting periods are based on calendar years.

SECTION D FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]

Two (2) pulverized coal fired dry bottom boilers, identified as Main Boiler 1 (MB1) and Main Boiler 2 (MB2).

Each boiler is rated at 12,374 million (MM) BTU per hour input, and each is used to generate 1,315 megawatts (net) of electricity.

Each boiler is with electrostatic precipitator (ESP) for particulate control, and low NOx burners (LNB) and overfire air (OFA) systems for NOx control and the emissions are exhausting to a common stack, identified as CS012.

Distillate oil and Specification Used oil are used for start up, flame stabilization purposes and occasional extended load operation only.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)] [326 IAC 2-2-3(a)(3)]

D.1 Pollution Control Project (PCP) [326 IAC 2-2-1(x)(2)(H)]

- (a) Pursuant to 326 IAC 2-2-1(x)(2)(H), the replacement of the LNB and the installation of OFA system to MB1 and MB2 to reduce NOx emissions are considered PCP, thus the project's CO collateral emissions are excluded from the 326 IAC 2-2 PSD requirements.
- (b) The Permittee shall not exceed 0.41 pound of NOx per million BTU of input energy, to be considered PCP. This NOx emission limitation supersedes the NOx emission limitation of 0.7 pound of NOx per million BTU of input energy specified in the existing operating permits of the Permittee.

D.2 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan (PMP), in accordance with Section C - Preventive Maintenance Plan, of this permit, is required for the MB1 and MB2 and their controls.

Compliance Determination Requirements [326 IAC 2-1.1-11]

D.3 Continuous Emission Rate Monitoring Requirement [326 IAC 2-2] [326 IAC 3-5]

- (a) Pursuant to 326 IAC 2-2, 326 IAC 2-2.5 and 326 IAC 3-5-1(d), the Permittee shall calibrate, certify, operate, and maintain the existing continuous emission monitoring system(s) (CEMS) and related equipment for measuring NOx emissions rates from the common stack, identified as CS012.
- (b) The Permittee shall update and submit to IDEM, OAQ, within 90 days after the initial start up of the PCP, the existing written continuous monitoring standard operating procedure (CMSOP), in accordance with the requirements of 326 IAC 3-5-4.

- (c) The Permittee shall record the output of the continuous monitoring system(s) and shall perform the required record keeping and reporting, pursuant to 326 IAC 3-5-6 and 326 IAC 3-5-7.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.4 Maintenance of CEMS [326 IAC 2-7-5(3)(A)(iii)]

- (a) In the event that a breakdown of the NOx continuous emission monitoring system (CEMS) occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem.
- (b) Nothing in this permit shall excuse the Permittee from complying with the requirements to operate a continuous emission monitoring system pursuant to 326 IAC 2-2, 326 IAC 10-4, Title IV Acid Rain and 40 CFR 60, Subpart D.

Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.5 Record Keeping Requirements

- (a) The Permittee shall maintain records required under 326 IAC 3-5-6 at the source in a manner that they may be inspected by the IDEM, OAQ, or the US EPA, if so requested or required.
- (b) The Permittee shall maintain records of the breakdown of the NOx CEMS, including but not limited to, the times and reasons of the breakdown and efforts made to correct the problem.
- (c) The Permittee shall maintain records of any additional inspections prescribed by the Preventive Maintenance Plan (PMP) and make available upon request to IDEM, OAQ, and the US EPA.
- (d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements of this permit.
- (e) Records necessary to demonstrate compliance shall be available within 30 days of the end of each compliance period.

D.6 Reporting Requirements [326 IAC 2-1.1-11] [40 CFR 60.276a]

- (a) The Permittee shall submit a quarterly report of the breakdown of the NOx CEMS, including but not limited to, the times and reasons of the breakdown and efforts made to correct the problem, using the Quarterly Deviation and Compliance Monitoring Report or its equivalent.
- (b) These reports shall be submitted no later than thirty (30) calendar days following the end of each calendar quarter and in accordance with Section C - General Reporting Requirements of this permit.
- (c) These reports do require the certification by the responsible official, as defined by 326 IAC 2-7-1(34).

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY**

CERTIFICATION

Source Name: Indiana Michigan Power Company - Rockport Plant
dba American Electric Power

Source Location: 2791 North US Highway 231, Rockport, IN 47635

**This certification shall be included when submitting monitoring, testing reports/results
or other documents as required by this approval.**

Please check what document is being certified:

- ☐ Test Result (specify)
- ☐ Report (specify)
- ☐ Notification (specify)
- ☐ Affidavit (specify)
- ☐ Other (specify)

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature:

Printed Name:

Title/Position:

Date:

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION**

QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT

Source Name: Indiana Michigan Power Company - Rockport Plant
dba American Electric Power
Source Location: 2791 North US Highway 231, Rockport, IN 47635

Months: _____ to _____ Year: _____

This report shall be submitted quarterly based on a calendar year.

Any deviation from the requirements, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. Deviations that are required to be reported by an applicable requirement shall be reported according to the schedule stated in the applicable requirement and do not need to be included in this report. If no deviations occurred, please specify in the box marked ANo deviations occurred this reporting period@

Additional pages may be attached if necessary.

? NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.

? THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD

Permit Requirement (specify permit condition #)

Date of Deviation:

Duration of Deviation:

Number of Deviations:

Probable Cause of Deviation:

Response Steps Taken:

Form Completed By:

Title/Position:

Date:

Telephone:

A certification by the responsible official as defined by 326 IAC 2-7-1(34) is required for this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE BRANCH**

EMERGENCY OCCURRENCE REPORT

Source Name: Indiana Michigan Power Company - Rockport Plant
dba American Electric Power
Source Location: 2791 North US Highway 231, Rockport, IN 47635

?	The Permittee must notify the Office of Air Quality (OAQ), no later than four (4) daytime business hours (1-800-451-6027 or 317-233-5674, ask for Compliance Section); and
?	The Permittee must submit notice in writing or by facsimile no later than two (2) working days (Facsimile Number: 317-233-5967), and follow the other requirements of 326 IAC 2-7-16.
Address: 100 North Senate Avenue, P.O. Box 6015, Indianapolis, Indiana 46206-6015	
If any of the following are not applicable, mark N/A	
Facility/Equipment/Operation:	
Control Equipment:	
Permit Condition or Operation Limitation in Permit:	
Description of the Emergency:	
Describe the cause of the Emergency:	
Date/Time Emergency started:	
Date/Time Emergency was corrected:	
Was the facility being properly operated at the time of the emergency? Y N	
Describe:	
Type of Pollutants Emitted: TSP, PM ₁₀ , SO ₂ , VOC, NO _x , CO, Pb, other:	
Estimated amount of pollutant(s) emitted during emergency:	
Describe the steps taken to mitigate the problem:	
Describe the corrective actions/response steps taken:	
Describe the measures taken to minimize emissions:	
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:	

Form Completed By:
Title/Position:
Date:
Telephone:

A certification by the responsible official as defined by 326 IAC 2-7-1(34) is NOT required for this report.

**Indiana Department of Environmental Management
Office of Air Quality**

**Addendum to the Technical Support Document (TSD) for a Part 70
Significant Source Modification (SSM) and Pollution Control Project (PCP)**

Source Background and Description

Source Name:	Indiana Michigan Power Company dba American Electric Power (IMPC dba AEP)
Source Location:	2791 North US Highway 231, Rockport, IN 47635
Mailing Address:	2791 North US Highway 231, Rockport, IN 47635 or AEP, 1 Riverside Plaza, Columbus, OH 43215
Source General Telephone Number:	812/649-9171
Responsible Official:	Vice President - Base 1300 Generation
County:	Spencer
SIC Code:	4911 (Electric Power Generation)
Source Categories:	1 of 28 listed source categories Major PSD Source Major Source, CAA Section 112
Significant Source Modification No.:	147-17468-00020
Permit Reviewer:	Iryn Calilung

Public Notification

On August 21, 2003, the Office of Air Quality (OAQ) had a notice published in the Journal Democrat, Rockport, Indiana, stating that Indiana Michigan Power Company dba American Electric Power (IMPC dba AEP), had applied for an air approval to construct a pollution control project. The public comment period ended on September 20, 2003.

Comments Received:

On September 19, 2003, the OAQ received comments from IMPC dba AEP. The comments are summarized below, with corresponding responses:

- (1) Contact Name
The name of the contact indicated in the notice is misspelled. The address of the contact is also incorrect .

OAQ Response: The OAQ will take note of the correct spelling and use the correct address. There is no change in the draft permit due to this comment.

- (2) TSD, Emission Calculation, NSPS
In the Paragraph 3(a), the NSPS Subpart referenced is incorrect. It should be 40 CFR Part 60.44, not 60.44a. The limit referenced is correct.

OAQ Response: It is duly noted that the NSPS referenced should be Subpart D. The OAQ corrects the error through this TSD Addendum. The OAQ prefers to keep the original TSD intact for documentation purpose. There is no change in the draft permit due to this comment.

- (3) TSD, Emission Calculation, Actual Emissions

In the Paragraph 4(b), IMPC dba AEP emphasized its position that the correct values to be submitted for annual emission statement are the unbiased CEMS data and that OAQ has no authority to unilaterally change them. The data used in this application was extracted from the certified emission statements which was filed with IDEM.

OAQ Response: The original TSD for this review already stated the explanation why there is a difference in emissions from the data submitted in this application to the data found in the OAQ Emission Inventory Database. It has also been stated that OAQ used the information submitted in the application as IMPC dba AEP contends to be used.

The purpose of this review is to determine the environmental benefit of the project and either data (application vs emission inventory) arrives to the same conclusion. There is no change in the draft permit due to this comment.

(4) TSD, Tables

There is discontinuity in the numbering of the tables in the TSD. There is no Table 10.

OAQ Response: The OAQ acknowledges this error. This TSD Addendum duly notes that there is no Table 10. There is no change in the draft permit due to this comment.

(5) Draft Permit, A.2

Condition A.2 is puzzling even though it is noted as being descriptive only and not an enforceable condition. It suggests that the permit covers construction of the main units and their associated ESPs, new burner and OFA. This permit should only cover the installation and operation of the new burners and OFA, and not the main boilers. The operation of the main boilers is authorized by existing permits, which are only indirectly affected by this action. Condition A.2 should be clear that this permit applies to the installation and operation of the new burner and OFA system on each unit.

OAQ Response: it is correct that this permit covers the installation of the new burners and OFA systems on the 2 main boilers. However, it also covers the operation of the 2 boilers after the new burners and OFA systems have been constructed. The intent of the Condition A.2 is to describe the emission units after the approved construction is installed. To make it clear, A.2 is revised as follows:

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)]
[326 IAC 2-7-5(15)] [326 IAC 2-7-5(15)]

~~This stationary source is approved to construct and operate the following emission units and pollution control devices:~~

- (a) replace the low NOx burners (LNB) of MB1 and MB2, and**
- (b) install an overfire air (OFA) system consisting of overfire air ports and associated duct work and damper systems to MB1 and MB2.**

The 2 main boilers are described as follows:

Two (2) pulverized coal fired dry bottom boilers, identified as Main Boiler 1 (MB1) and Main Boiler 2 (MB2).

Each boiler is rated at 12,374 million (MM) BTU per hour input, and each is used to generate 1,315 megawatts (net) of electricity.

Each boiler is with electrostatic precipitator (ESP) for particulate control, and low NOx burners (LNB) and overfire air (OFA) systems for NOx control and the emissions are exhausting to a common stack, identified as CS012.

Distillate oil and Specification Used oil are used for start up, flame stabilization purposes and occasional extended load operation only.

(6) Draft Permit, B.4 (Affidavit of Construction)

Condition B.4 exhibits a confusing representation of what must be certified and when. This condition does not fit with the reality of the planned work because the 2 boilers will not be fitted with this new equipment simultaneously. IDEM should clarify to indicate whether an Affidavit of Construction as required for each unit once the equipment is installed, after the installation on just the first unit is completed or only after all the work on both units is completed.

OAQ Response: To clarify that partial Affidavit of Construction can be submitted for phase construction, the following has been added (in bold font).

B.4 Significant Source Modification [326 IAC 2-7-10.5(h)]

This document shall also become the approval to operate pursuant to 326 IAC 2-7-10.5(h) when, prior to start of operation, the following requirements are met:

- (a) The attached affidavit of construction or its equivalent shall be submitted to the:

Indiana Department of Environmental Management
Office of Air Quality, Permit Branch
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

verifying that the PCP was constructed as proposed in the application or the permit.

The PCP covered in the Significant Source Modification (SSM) approval may begin operating on the date the affidavit of construction is postmarked or hand delivered to IDEM if constructed as proposed.

If construction is completed in phases; i.e., the entire construction is not done continuously, a separate affidavit must be submitted for each phase of construction. Any permit conditions associated with operation start up dates such as stack testing for New Source Performance Standards (NSPS) shall be applicable to each individual phase.

(7) Draft Permit, C.5 (Operation of Equipment)

Condition C.5 does not properly describe or relate to the equipment being installed under this permit. The LNB and OFA are integral parts of the combustion system and are not and do not function as add on control as this condition suggests. The unit is not vented to this equipment as this condition indicates. Due to the integral nature of this equipment, Condition C.5 has no reasonable applicability to this equipment and should be removed from the permit.

OAQ Response: It is correct that the LNB and OFA are not control equipment in a sense that the units vent their emissions through them to be controlled. However, control equipment has a broader meaning than this. Control can be combustion modification, as in this specific case. The intent of the condition is to assure that the LNB and OFA systems are operating at all times when the boilers are operating. This might already be the case because of the nature of the design of the system. However, an enforceable

condition still has to be stated that indicates this requirement. To make it clearer, the condition is changed as follows:

C.5 Operation of Equipment [326 IAC 2-7-6(6)]

~~Except as otherwise provided by statute or rule, or in this permit, all air pollution control equipment listed in this permit~~ **the LNB and OFA and used to comply with an applicable requirement shall be operated at all times that the emission units vented to the control equipment—2 main boilers** are in operation.

(8) Draft Permit, C.9 (CRP)

Condition C.9 is not required until the renewal of the initial Part 70 permit. CAM applies to permits issued under Part s 70 and 71. This project is exempted by 40 CFR 64.2(b)(1)(iv) because the project done under an approved trading program is exempt from CAM. The NOx CEMS required by 40 CFR 75 for these units will satisfy all future CAM requirements. Condition C.9 should be removed from this permit.

OAQ Response: There is sufficient authority for requiring a CRP:

- - 326 IAC 2-7-5(1) requires that air approvals issued under the Part 70 program must contain operational requirements and limitations that assure compliance with all applicable requirements.
- - 326 IAC 2-7-5(3) requires that air approvals issued under the Part 70 program must contain monitoring and related record keeping requirements which assure that all reasonable information is provided to evaluate continuous compliance with applicable requirements.
- - 326 IAC 2-7-5(3)(A)(ii) requires that, at a minimum, the periodic monitoring requirements must be sufficient to yield reliable data from the relevant time period that are representative of the sources compliance, even where the applicable requirement does not require periodic testing or instrumental monitoring.

The requirement that the permit contain operational requirements and limitations that assure compliance with all applicable requirements, coupled with the rule requirements for compliance monitoring, provides all the necessary authority for this permit requirement. There is no change in the draft permit due to this comment.

(9) Draft Permit, D.1.1(b) - - NOx Limit

Condition D.1.1(b) should be removed. The purpose of the project is to decrease NOx emissions, no permit is required under the PSD rules and IAC 2-2-3(a)(3) are not applicable. Both 326 IAC 2-2.5 and 326 IAC 2-7-5(1) do not provide authority to impose a new NOx limit. The Part 70 permit does not create new enforceable permit terms and conditions. It merely serves as a vehicle to collect all of the applicable limitations and requirements for a source.

The TSD indicates that the justification for the new emission limit is based on 326 IAC 2-2-1(x)(2)(H), which is not cited in the permit document. In this rule, there is no justification for this limitation. This rule clearly indicates that a PCP does not constitute a modification or change in method of operation as long as it does not cause an increase in emissions. There is no indication of the need for a revised emission limitation of any nature. The units can not operated normally without the equipment being installed, automatically resulting a reduction in the annual NOx emissions.

OAQ Response: This project will result in a decrease in NOx emissions, however, it will also result in a significant increase CO emissions. The installation of the OAF in conjunction to the LNB has been exempted from the PSD review even though there is a corresponding significant CO emissions increase because of the decrease in the NOx emissions. If the NOx limit is maintained as before, there is no enforceable requirement that keeps the significant CO emissions increase from PSD requirements. The OAQ is aware of the design of the steam generators, LNB and OFA systems and their operations, however, specific numerical limit still has to be indicated in addition to the compliance monitoring. The NOx new limit specified to assure that the reduction is clearly enforceable and that the CO emissions increase is exempted from PSD. The draft condition is revised to correct the rule citation.

- D.1 Pollution Control Project (PCP) ~~[326 IAC 2-2-5]~~ **[326 IAC 2-2-1(x)(2)(H)]**
- (a) Pursuant to 326 IAC ~~2-2-5~~ **2-2-1(x)(2)(H)**, the replacement of the LNB and the installation of OFA system to MB1 and MB2 to reduce NOx emissions are considered PCP, thus the project's CO collateral emissions are excluded from the 326 IAC 2-2 PSD requirements.
 - (b) The Permittee shall not exceed 0.41 pound of NOx per million BTU of input energy, to be considered PCP. This NOx emission limitation supersedes the NOx emission limitation of 0.7 pound of NOx per million BTU of input energy specified in the existing operating permits of the Permittee.

(10) Draft permit, D. 2 - - PMP

Condition D.2 requires PMP for the boilers and control devices. 326 IAC 2-7-5 does not have the authority to require PMP for the boilers. 326 IAC 1-6-3 plainly states that PMP apply only to the control devices and not to the main source. Condition D.2 should be revised to reflect this limitation. D.2 should be revised as follows to conform it to the language of Section C.2 of this permit.

A Preventive Maintenance Plan (PMP), in accordance with Section C - Preventive Maintenance Plan, of this permit, is required for the PCP.

OAQ Response: IDEM has the authority to require PMP. The authority to require a source to have PMPs is under the Part 70 program. The Part 70 rules indicate the PMP requirement in:

- - 326 IAC 2-7-4(c)(4)(9), which requires the Part 70 application confirms the existence of an on-site PMP.
- - 326 IAC 2-7-5(13), which requires the Part 70 permit to have a provision regarding a PMP.

The Part 70 rule refers back to the PMP as required and described under 326 IAC 1-6-3.

326 IAC 1-6-3 applies to any person responsible for operating a facility required to obtain a permit under 326 IAC 2-1-2 and 326 IAC 2-1-4 shall prepare and maintain a PMP including the requirements specified in 326 IAC 1-6-3(a) to (a)(3).

326 IAC 1-2-26 defines Facility as any one structure, piece of equipment, installation or operation which emits or has the PTE any air contaminant.

Based on the definition of Facility, 326 IAC 1-6-3 that the PMP is required for the facility.

However, 326 IAC 1-6-3 (a)(1) is limited, in that it requires identification of the personnel in charge of only the emission control equipment.

(11) Draft permit, D.3.(b) - - CMSOP

Condition D.3(b) is redundant as the SOP referenced in this condition has already been filed with IDEM under 326 IAC 3-5-4. Condition D.3(b) should be revised as follows:

The Permittee shall update and submit to IDEM, OAQ as specified by rule, the existing written continuous monitoring standard operating procedure (CMSOP), in accordance with the requirements of 326 IAC 3-5-4.

OAQ Response: The intent of this condition is for the Permittee to update, if necessary, their existing CMSOP to incorporate the installation of the OFA/replacement of burners, then submit the latest version to IDEM, within a clear specific time frame. The suggested language does not provide the same clarity as the draft condition. If the Permittee decides that there is no need to revise the existing CMSOP, the Permittee may submit a written notification to IDEM indicating that the existing CMSOP applies with no further revision. There is no change in the draft permit due to this condition.

**Indiana Department of Environmental Management
Office of Air Quality**

**Technical Support Document (TSD) for a Part 70
Significant Source Modification (SSM) and Pollution Control Project (PCP)**

Source Background and Description

Source Name:	Indiana Michigan Power Company dba American Electric Power (IMPC dba AEP)
Source Location:	2791 North US Highway 231, Rockport, IN 47635
Mailing Address:	2791 North US Highway 231, Rockport, IN 47635 or AEP, 1 Riverside Plaza, Columbus, OH 43215
Source General Telephone Number:	812/649-9171
Responsible Official:	Vice President - Base 1300 Generation
County:	Spencer
SIC Code:	4911 (Electric Power Generation)
Source Categories:	1 of 28 listed source categories Major PSD Source Major Source, CAA Section 112
Significant Source Modification No.:	147-17468-00020
Permit Reviewer:	Iryn Calilung

History

Indiana Michigan Power Company, dba American Electric Power (IMPC dba AEP) has 2 existing main boilers, identified as Main Boiler 1 (MB1) and Main Boiler 2 (MB2) in their Rockport plant. Each boiler is rated at 12,374 million (MM)BTU/hour. These 2 boilers are also subject to the Acid Rain (Title IV) program and NO_x SIP call under 326 IAC 10-4.

IMPC dba AEP is operating under the following air approvals:

Table 1 - - Issued Air Approvals	
Permit Number	Issuance Date
147-2624-00020	July 6, 1992
147-2317-00020	January 27, 1992
147-2165-00020	January 2, 1992
(74)1808/3940-00020	June 18, 1990
74-03-92-0083	December 20, 1988
74-03-92-0081	
74-03-92-0080	
74-03-92-0079	
74-03-9-20078	

Proposed Modification

On July 1, 2003, the Office of Air Quality (OAQ) received an application from IMPC dba AEP for their Rockport plant. The emissions units involved in this application are:

Two (2) pulverized coal fired dry bottom boilers, identified as Main Boiler 1 (MB1) and Main Boiler 2 (MB2). Each boiler is rated at 12,374 million (MM) BTU per hour input, and each is used to generate 1,315 megawatts (net) of electricity. Each boiler is with electrostatic precipitator (ESP) for particulate control, and low NO_x burners (LNB) and overfire air (OFA) systems for NO_x control and the emissions are exhausting to a common stack, identified as CS012.

Distillate oil and Specification Used oil are used for start up, flame stabilization purposes and occasional extended load operation only.

There are other existing emission units in this Rockport Plant, however, they are not involved in this proposed project. The review is solely limited to MB1 and MB2.

IMPC dba AEP is proposing to:

- (1) replace the low NO_x burners (LNB) of MB1 and MB2, and
- (2) install an overfire air (OFA) system consisting of overfire air ports and associated duct work and damper systems to MB1 and MB2.

This proposed modification can be accomplished with no new construction of emitting unit. This proposed modification is expected not to change the input capacity of the boilers. MB1 is scheduled to be modified in September, 2003 and MB2 is scheduled to be modified in March, 2004.

The proposed modification will be evaluated as a Pollution Control Project (PCP). NO_x emissions will be controlled by the use of LNB in conjunction with OFA system. The PCP is being performed by IMPC dba AEP to comply with the NO_x SIP call. NO_x emissions is currently being monitored by a NO_x continuous emission monitoring system (CEMS).

LNB and OFA are complementary combustion modifications for NO_x control that incorporate both localized staging process inherent in LNB designs and the bulk furnace air staging of OFA. When OFA is used with LNB, a portion of the air supplied to the burners is diverted to OFA ports located above the top burner row. This reduces the amount of air in the burner zone to an amount below that required for complete combustion. The final burn out of the fuel rich combustion gases is delayed until the OFA is injected into the furnace. Using OFA with LNB decreases the rate of combustion, and less intense, cooler flame results, which suppresses the formation of thermal NO_x.

LNB can achieve 30-60% NO_x reductions and they are currently considered to be the most cost effective method of achieving NO_x reductions.

OFA can achieve less (20-40%) NO_x reduction and its is best considered in conjunction with other technologies, such as LNB and reburn.

Pursuant to 326 IAC 2-2-1(x)(2)(G), the addition, replacement, or use of a pollution control project (PCP) at an existing electric steam generating unit is not consider a physical change or change in method of operation, thus not subject to PSD major modification requirements. This exemption is limited to the PSD review, it does not exempt the project from other pre-construction approval requirements. Details of this evaluation is made in the subsequent pages of this TSD.

Emission Calculations

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA.

- (1) Table 2 summarizes the PTE of units MB1 and MB2 before this PCP. Emission Factors are provided by IMPC dba AEP.

$$\text{Pollutant} = (\text{Emission factor lb/MMBTU}) * (12,374 \text{ MMBTU/hour maximum capacity}) * (8760 \text{ hours/year}) * (1 \text{ ton}/2000 \text{ pounds}) = \text{tons/year}$$

- (2) Table 3 summarizes the PTE of units MB1 and MB2 after the PCP.

- (a) Emission Factors are provided by IMPC dba AEP and are based on manufacturer's data.
- (b) IMPC dba AEP has indicated that during the ozone season (May 1 to September 30), the OFA system is expected to control NO_x emissions at its design emission rate, and during the non-ozone season (October 1 to April 30), it is expected to operate at a higher rate. It is assumed that the CO emission rate will be the same throughout.
- (c) Ozone season is approximately 152 days and non-ozone season is approximately 212 days.
- (d) $\text{NO}_x = [(\text{Emission factor ozone season lb/MMBTU}) * (12,374 \text{ MMBTU/hour maximum capacity}) * (152 \text{ days}) * (24 \text{ hours/day}) + (\text{Emission factor non-ozone season lb/MMBTU}) * (12,374 \text{ MMBTU/hour maximum capacity}) * (212 \text{ days}) * (24 \text{ hours/day})] * (1 \text{ ton}/2000 \text{ lbs}) = \text{tons/year}$
- (e) $\text{CO} = (\text{Emission factor lb/MMBTU}) * (12,374 \text{ MMBTU/hour maximum capacity}) * (8760 \text{ hours/year}) * (1 \text{ ton}/2000 \text{ lbs}) = \text{tons/year}$

- (3) Table 4 shows the allowable emissions based on the NSPS 60 CFR Part 60 Subpart D.

- (a) The NO_x emission factor is the allowable emission rate specified in the NSPS 40 CFR Part 60.44a. There is no CO emission rate specified in this NSPS that is applicable to the boilers.
- (b) $\text{Pollutant} = (0.7 \text{ lb/MMBTU}) * (12,374 \text{ MMBTU/hour maximum capacity}) * (8760 \text{ hours/year}) * (1 \text{ ton}/2000 \text{ lbs})$
- (c) This calculation is to show the difference between emission rates based standard established in the 1980's and today's standards.

- (4) Table 5 summarizes the actual emissions of units MB1 and MB2 before the PCP.
- (a) Pursuant to 326 IAC 2-2-1(b)(4), for an electric utility steam generating unit, actual emissions of the unit shall equal the representative actual emissions of the unit, provided the source maintains and submits to OAQ on an annual basis for a period of 5 years from the date the unit resumes operation, information demonstrating that physical or operational change did not result in an emission increase.
 - (b) The actual emissions summarized are taken from the application submitted for this PCP. There is slight difference in the actual emissions between the IDEM Emission Inventory and the actual emissions as submitted in the application. IMPC bda AEP indicated that the inventory submitted in this application is the same inventory submitted to IDEM for the Emission Inventory, but IDEM unilaterally adjust the emissions in accordance with the Acid Rain Program. Since there is only slight difference and the result of the evaluation remains the same, the PCP review will use the data submitted with the PCP application.
- (5) Table 6 summarizes the baseline actual emissions. The actual emissions were based on the average of the 2-consecutive 2-year period, using the year with the highest emissions as the reference.
- (6) Table 7 summarizes the projected actual emissions of MB1 and MB2. These future actual emissions were submitted by Indiana Michigan Power. These were based on the applicant's May 2003 regulatory filing with the Virginia and Michigan commissions.
- The OAQ did not verify the accuracy of these projected actual emissions.
- (7) Table 8 shows 2 different methodologies to determine emissions increase or decrease due to the PCP.
- (a) PTE before the PCP - PTE after the PCP
 - (i) These PTEs are based on the maximum lb/hr manufacturer's guaranteed rates before and after the PCP and operating at 8760 hours per year.
 - (ii) The (PTE before the PCP) is subtracted from the (PTE after the PCP). This methodology is used to determine the emission increase of the project.
 - (iii) The difference shows that there is a significant decrease in NO_x PTE and a significant increase in CO PTE.
 - (b) PTE after the PCP - Past Actual
 - (i) The (Past Actual) is subtracted from the (PTE after the PCP). This methodology is used to determine the emission increase of the project.
 - (ii) The difference shows that there is a significant decrease in NO_x emissions and a significant increase in CO emissions.
 - (c) Negative sign indicates the decrease in emissions.

- (8) Table 9 shows another methodology to determine emissions increases or decreases due to this PCP.
- (a) The (Past Actual) is subtracted from the (Projected Actual). This methodology is used to determine the emission increase of the project.
 - (b) The difference shows that there is a significant decrease in NOx emissions and a significant increase in CO emissions.
 - (c) Negative sign indicates the decrease in emissions.
- (9) All the 3 methodologies used to determine emissions increase/decrease arrived to the same conclusion that the OFA system will result in a significant decrease in NOx emissions and a significant increase in CO emissions as the collateral emissions.

Table 2 PTE Before The PCP			
Pollutant	Emission Factors (lb/MMBTU)	PTE (tons/year) each boiler	Total PTE (tons/year) (2 boilers)
NOx	0.41	22,221.23	44,442.46
CO	0.028	1,517.55	3,035.1

Table 3 PTE After The PCP				
Pollutant	Emission Factors (lb/MMBTU)		PTE (tons/year) each boiler	Total PTE (tons/year) (2 boilers)
	Ozone Season	Non-Ozone Season		
NOx	0.25	0.30	15,086.38	30,172.76
CO	0.056		3,035.09	6,070.18

Table 4 PTE Based on the NSPS 40 CFR Part 60 Subpart D			
Pollutant	Emission Factors (lb/MMBTU)	PTE (tons/year) each boiler	Total PTE (tons/year) (2 boilers)
NOx	0.7	37,938.68	75,877.36

Table 5 Actual Emissions (tons/year)						
Unit ID	Pollutant	1998	1999	2000	2001	2002
MB1	NOx	16,085	14,705	18,000	16,181	17,108
	CO	1,338	1,053	1,278	1,180	1,164
MB2	NOx	14,556	17,105	16,892	17,037	16,886
	CO	1,168	1,228	1,202	1,243	1,148

Table 6 Baseline Actual Emissions
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Unit ID	Pollutant	Baseline Actual Emissions (tons/years)	Years Used
MB1	NOx	17,091	2000 & 2001
	CO	1,229	2000 & 2001
M2	NOx	16,999	1999 & 2000
	CO	1,222	2000 & 2001

Table 7 Projected Actual Emissions (tons/years)						
Unit ID	Pollutant	2004	2005	2006	2007	2008
MB1	NOx	13,170	12,242	11,535	13,216	12,760
	CO	2,631	2,447	2,321	2,633	2,554
MB2	NOx	11,307	12,951	12,409	10,755	13,245
	CO	2,254	2,572	2,476	2,180	2,648

Table 8 Emissions Increase/Decrease Evaluation (tons/year)			
Unit ID	Pollutant	PTE-PTE	PTE-Past Actual
		(Table3 - Table2)	(Table 3 - Table6)
MB1	NOx	-7,134.95	-2,004.62
	CO	1,517.54	1,806.09
MB2	NOx	-7,134.95	-1,912.62
	CO	1,517.54	1,813.09

Table 9 Actual Emissions Increase/Decrease Evaluation (tons/years)						
(Table 6 - Table 7)						
Unit ID	Pollutant	2004	2005	2006	2007	2008
MB1	NOx	-13,170	-12,242	-11,535	-13,216	-12,760
	CO	2,631	2,447	2,321	2,633	2,554
MB2	NOx	-11,307	-12,951	-12,409	-10,755	-13,245
	CO	2,254	2,572	2,476	2,180	2,648

Pollution Control Project (PCP) Exclusion

This project is going to be evaluated as a PCP. A project that is considered a PCP is exempted from PSD major review and requirements even though the collateral emissions increase is greater than the PSD significant levels.

Pursuant to 326 IAC 2-2-1(x)(2)(H), the addition, replacement, or use of a pollution control project (PCP) at an existing electric steam generating unit is not consider a physical change or change in method of operation, thus not subject to PSD major modification requirements. This exemption is limited to the PSD review, it does not exempt the project from other pre-construction approval.

Pursuant to 326 IAC 2-2-1(x)(2)(H), a PCP shall be considered a significant source modification

under 326 IAC 2-17-10.5(f)(8) or 326 IAC 2-7-10.5(f)(9).

326 IAC 2-2.5 does not apply to this PCP because it is an existing utility.

Increase Utilization

There is no expected increase in utilization due to this proposed PCP.

Justification for Modification

The source is being modified through a Part 70 Significant Source Modification (SSM).

- (1) Pursuant to 326 IAC 2-7-10.5(f)(8) and (f)(9), PCP is to be process as a SSM.
- (2) Pursuant to 326 IAC 2-2-1(x)(2)(H), a PCP in an existing electric steam generating unit is to be process as a SSM.

Enforcement Issue

There are no enforcement actions pending on this IMPC dba AEP - Rockport plant.

Source Status

- (1) Pursuant to 40 CFR Part 52.21(b)(i)(a) and 326 IAC 2-2-1(y)(1)(T), this existing source is a major stationary source because an attainment regulated pollutant is emitted at a rate of 100 tons per year or more, and it is one of the 28 listed source categories.
- (2) The source's Part 70 application (identified as 147-6786-00020) was received by OAQ on October 1, 1996 and is under review.

County Attainment Status

The source is located in Spencer County. Table 11 shows the attainment status of Spencer County.

Table 11 - - Spencer County	
Pollutant	Status
PM-10	Attainment
SO ₂	Attainment
NO ₂	Attainment
Ozone	Attainment
CO	Attainment
Lead	Attainment

- (1) Volatile organic compounds (VOC) and Ozone

VOC are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Spencer County has been designated as attainment or unclassifiable for ozone. Therefore, VOC emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

(2) Criteria Pollutants

Spencer County has been classified as attainment or unclassifiable for all the other pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD) 326 IAC 2-2.

(3) Fugitive Emissions

Since this type of operation is one of the 28 listed source categories under 40 CFR Part 52.21(b)(i)(c)(iii)(s) and 326 IAC 2-2-1(y)(1)(T) and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive PM emissions are counted toward determination of PSD applicability.

Federal Rule Applicability

(1) New Source Performance Standards (NSPS)

Even prior to this PCP, MB1 and MB2 are already subject to the federal requirement under NSPS 40 CFR Part 60, Subpart D.

Based on the existing operating permits of IMPC dba AEP, NOx emissions limit of MB1 and MB2 is 0.7 pounds/MMBTU of energy input.

Since the emission rate in terms of pounds per hour is not expected to increase, there is no change in the NSPS applicability.

The emission rate under the PCP requirement is more stringent than this NSPS federal NOx requirement, therefore the PCP NOx rate will supersede the NSPS NOx emission rate.

(2) National Emission Standards for Hazardous Air Pollutants (NESHAP)

There are no NESHAP (326 IAC 14, 40 CFR Part 61, and 40 CFR Part 63) applicable to this proposed modification.

(3) Section 112(j) of the Clean Air Act (CAA)

IMPC dba AEP is subject to the Section 112(j) of the CAA because the source is considered a major source for HAPs.

IMPC dba AEP submitted their Part 1 application on May 14, 2002. This source did not request for a CAA Section 112(j) application determination. At this time, the Part 2 MACT application is due on May 14, 2004.

The Part 1 application does not deal with MB1 and MB2. The Part 1 application deals with the auxiliary boilers and reciprocating internal combustion engines that are in the source.

(4) Prevention of Significant Deterioration (PSD) 40 CFR 52.21

This proposed modification is not subject to PSD review and requirements because of the PCP exclusion.

(5) Compliance Assurance Monitoring (CAM) 40 CFR Part 64

MB1 and MB2 have each NO_x PTE before and after control greater than the Part 70 major source level, thus pursuant to 40 CFR 64.2(a), CAM applies. Compliance is shown by the use of a NO_x continuous emission monitoring system (CEMS).

State Rule Applicability - Individual Facilities

(1) 326 IAC 1-6-3 and 326 IAC 2-7-5(13) (Preventive Maintenance Plan (PMP))

Even prior to this PCP, MB1 and MB2 are already subject to the PMP requirements.

(2) 326 IAC 2-2 (PSD)

As indicated in the PCP evaluation, this proposed modification is not subject to the PSD requirements and review process.

(3) 326 IAC 2-2.5 (PCP)

This project has been evaluated to comply with the PCP regulations, under 326 IAC 2-2-1(x)(2)(H).

IMPC dba AEP has concerns to any requirement that specifies a NO_x emission rate that was used in the PCP review.

The MB1 and MB2 have existing NO_x limit of 0.7 lb/MMBTU which is under 40 CFR Part 60, Subpart D. A new NO_x emission rate that is going to be specified means that there is enforceable emission rate that is more stringent than the existing NO_x limit, thus confirming that this project is PCP and exempted from PSD requirements.

(4) 326 IAC 10-1-1 (NO_x Control in Clark and Floyd Counties)

This rule does not apply to this PCP because this Rockport plant is not located in Clark or Floyd County.

(5) 326 IAC 10-3 (NO_x Reduction Program for Specific Source Categories)

This rule does not apply because electric steam generating unit is not one of the specific listed source categories.

(6) 326 IAC 10-4-1 (NO_x Budget Trading Program)

This rule establishes a NOx emissions budget and trading program for electric generating units. IMPC dba AEP is subject to this requirement, however, the source does not need to comply until May 31, 2004.

IMPC dba AEP indicated that the primary purpose of this PCP is to comply with the NOx Budget Trading Program, this review was concentrated on the PCP requirements. A separate application and review is going to concentrate on the NOx Budget Trading Program. The application (identified as 147-17030-00020) for the NOx Budget Trading Program was received by OAQ on July 7, 2003.

Air Quality Impact Analysis

Pursuant to 326 IAC 2-2.5(e), IDEM may request the applicant to submit an air quality impact analysis of the net emissions increase of the PCP.

IMPC dba AEP provided a CO air impact analysis for this review. Based on the results that the installation of the OFA to MB1 and MB2 does not cause or contribute an exceedance to the ambient standards.

Testing Requirements

Since a NOx CEMS is already monitoring NOx emissions, there will be no requirement to perform compliance testing.

Compliance Requirements

A NOx CEMS is used to show compliance. IMPC dba AEP has concerns to the requirement that if the NOx CEMS is malfunctioning, it has to be repair/replace and back in operation no later than 4 hours. IDEM kept this so that the time frame is definite and the expectation is clear.

There is no CO CEMS in this plant.

Recommendation

Based on the facts, conditions and evaluations made, OAQ recommends to the IDEM Commissioner that the Part 70 Significant Source Modification (SSM) and pollution control project (PCP) be approved made available to the public and interested parties for review.

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on July 1, 2003, with additional information as comments to the draft permit received on July 25, 2003.

In addition to the air pollution control requirements, the applicant has provided a copy of the application to the Spencer County Public Library, 210 Walnut Street, IN 46735.

Conclusion

The construction of this proposed PCP shall be subject to the conditions of the attached proposed Part 70 SSM and PCP Permit No. 147-17468-00020.